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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/961,432	09/25/2001	Akira Sugimoto	Q66268	8293

7590 07/22/2003

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EXAMINER

HODGES, MATTHEW P

ART UNIT	PAPER NUMBER
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2879

DATE MAILED: 07/22/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/961,432

Applicant(s)

SUGIMOTO ET AL.

Examiner

Matt P Hodges

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 September 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Specification

The disclosure is objected to because of the following informalities:

Page 7 line 17, reference number 11 does not appear in the drawings.

The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-9 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 1, it is unclear if the surfaces of the resin substrate are exclusive to the substrate itself or are inclusive of the surfaces of the organic EL element in contact with the substrate. For the purposes of examination the surfaces of claim 1 will be interpreted to mean any surface of the actual resin substrate but not including surfaces of any other elements.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

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A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-4 and 8 are rejected under 35 U.S.C. 102(b) as being anticipated by Harvey, III et al. (5,757,126).

Regarding claims 1-4, Harvey discloses (see figures 9 and 1) an organic EL display including an array of Organic EL elements (12) including: an anode layer (13), a light emitting layer (16), and a cathode layer (15). (Column 4 lines 8-20). The display further includes a plastic substrate (11) with all surfaces of the substrate covered by a barrier film (16). (Column 5 lines 19-26). The barrier film is an inorganic film. (Column 5 lines 5-13).

Regarding claim 8, Harvey further discloses (see figure 11) a sealing film (52) that covers the rear sides of the organic EL elements. (Column 6 lines 60-61).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 5 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Harvey III et al. (5,757,126) in view of Yamazaki (US 6,432,561).

Regarding claim 5, Harvey discloses the display as described (see rejection of claim 1 above) but does not appear to specify the use of silicon nitride oxide as the inorganic barrier film composition. However Yamazaki, in the same field of endeavor, discloses the use of silicon

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nitride oxide in passivation films to advantageously protect the device from moisture and oxygen. (Column 4 lines 35-41). Providing a barrier against moisture and oxygen allows for a longer device life. Thus, it would have been obvious at the time the invention was made to a person having ordinary skills in the art to incorporate the use of silicon nitride oxide as the inorganic barrier film composition into the display as disclosed by Harvey in order to advantageously provide a longer device life.

Regarding claim 6, Harvey in view of Yamazaki discloses the display as described (see rejection of claim 5 above) but does not appear to specify the use of silicon nitride oxide in a ratio of nitrogen to oxygen from 0.13 to 2.88 as the inorganic barrier film composition. However the applicant fails to identify the use of silicon nitride oxide in a ratio of nitrogen to oxygen from 0.13 to 2.88 as the inorganic barrier film composition to solve any problem or yield any unexpected result that is not within the scope of the teachings relied upon. It would have been an obvious design choice to one having ordinary skill in the art to use silicon nitride oxide in a ratio of nitrogen to oxygen from 0.13 to 2.88 as the inorganic barrier film composition in the device as taught by Harvey in view of Yamazaki, since such a modification would involve a mere optimization of workable ranges with only routine experimentation.

Claims 7 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Harvey III et al. (5,757,126).

Regarding claim 7, the Examiner notes that the claim limitation that "said inorganic barrier film is deposited by sputtering" is drawn to a process of manufacturing which is incidental to the claimed apparatus. It is well established that a claimed apparatus cannot be

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distinguished over the prior art by a process limitation. Consequently, absent a showing of an unobvious difference between the claimed product and the prior art, the subject product-by-process claim limitation is not afforded patentable weight (see MPEP 2113). Therefore, it is the position of the examiner that it would have been obvious to one of ordinary skill in the art that the display disclosed by Harvey is at least a fully functional equivalent to the Applicant's claimed display as evidenced by the rejection of claim one's suggestion of all of the Applicant's claimed structural limitations.

Regarding claim 9, Harvey discloses the display as described (see rejection of claim 1 above) Harvey further discloses (see figure 11) an additional inorganic barrier film (60) surrounding the organic EL elements. (Column 6 lines 55-59). Harvey does not appear to specify the two inorganic barrier films being the same film. However making the films integral allows for easier manufacture and thus lowers cost. Thus, it would have been obvious at the time the invention was made to a person having ordinary skills in the art to incorporate specify the two inorganic barrier films being the same film into the device as disclosed by Harvey in order to advantageously reduce cost and increase ease of manufacture.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Silvernail et al. (US 6,537,688) discloses the use of an epoxy encapsulant for the organic EL device that surrounds all elements.

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Nakamata et al. (US 6,570,323) discloses the use of a barrier wall extending over the entire display element.

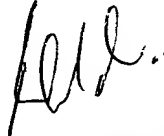
Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Matt P Hodges whose telephone number is (703) 305-4015. The examiner can normally be reached on 7:30 AM to 4:00 PM M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimesh Patel can be reached on (703) 305-4794. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-7382 for regular communications and (703) 308-7382 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

mph 
July 14, 2003


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